

**WHAT IS CLAIMED IS:**

1 A method of inhibiting the growth of hematopoietic cells comprising:

contacting a plurality of hematopoietic cells with a growth inhibiting amount of a capsid agent selected from the group consisting of a recombinant B19 parvovirus capsid, a recombinant B19 parvovirus VP2 capsid, and a fragment of a recombinant B19 parvovirus VP2 capsid, wherein said fragment is at least three amino acids in length; and

measuring the inhibition of growth of said hematopoietic cells.

2. The method of Claim 1, wherein a growth inhibiting amount of the recombinant  
10 B19 parvovirus capsid is contacted with said plurality of hematopoietic cells.

3. The method of Claim 1, wherein a growth inhibiting amount of the recombinant B19 parvovirus VP2 capsid is contacted with said plurality of hematopoietic cells.

4. The method of Claim 1, wherein a growth inhibiting amount of the fragment of a recombinant B19 parvovirus VP2 capsid is contacted with said plurality of hematopoietic cells.

5. The method of Claim 4, wherein said fragment consists of the sequence glutamine-glutamine-tyrosine.

6. The method of Claim 4, wherein said fragment consists of the sequence of SEQ.

**ID. No. 5.**

20 7. The method of Claim 1, wherein said measuring step comprises observing a  
reduction in the presence of a hematopoietic cell.

8. The method of Claim 1, wherein said measuring step involves observing a reduction in red blood cell hematocrit.

9 A method of inhibiting the proliferation of endothelial cells comprising:

25 contacting a plurality of endothelial cells with a proliferation inhibiting amount of a capsid agent selected from the group consisting of a recombinant B19 parvovirus capsid and a recombinant B19 parvovirus VP2 capsid; and

measuring the inhibition of proliferation of said endothelial cells.

10. The method of Claim 9, wherein a proliferation inhibiting amount of the  
recombinant B19 parvovirus capsid is contacted with said plurality of endothelial cells.

11. The method of Claim 9, wherein a proliferation inhibiting amount of the recombinant B19 parvovirus VP2 capsid is contacted with said plurality of endothelial cells.

12. The method of Claim 9, wherein said measuring step comprises observing a  
5 reduction in the presence of an endothelial cell.

13 A method of inhibiting the migration of endothelial cells comprising:

contacting a plurality of endothelial cells with a migration inhibiting amount of a capsid agent selected from the group consisting of a recombinant B19 parvovirus capsid, a recombinant B19 parvovirus VP1 capsid, and a recombinant B19 parvovirus VP2 capsid; and

measuring the inhibition of migration of said endothelial cells.

14. The method of Claim 13, wherein a migration inhibiting amount of the recombinant B19 parvovirus capsid is contacted with said plurality of endothelial cells.

15. The method of Claim 13, wherein a migration inhibiting amount of the recombinant B19 parvovirus VP1 capsid is contacted with said plurality of endothelial cells.

16. The method of Claim 13, wherein a migration inhibiting amount of the recombinant B19 parvovirus VP2 capsid is contacted with said plurality of endothelial cells.

20 17. The method of Claim 13, wherein said measuring step involves observing a  
reduction in metastasis or angiogenesis.

18 A method of inhibiting the growth of hematopoietic cells comprising:

identifying a subject in need of an inhibition of growth of hematopoietic cells; and

25 providing to said subject a growth inhibiting amount of a capsid agent  
selected from the group consisting of a recombinant B19 parvovirus capsid, a  
recombinant B19 parvovirus VP2 capsid, and a fragment of a recombinant B19  
parvovirus VP2 capsid, wherein said fragment is at least three amino acids in length.

30 19. The method of Claim 18, wherein a growth inhibiting amount of the recombinant B19 parvovirus capsid is provided to said subject.

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20. The method of Claim 18, wherein a growth inhibiting amount of the recombinant B19 parvovirus VP2 capsid is provided to said subject.
21. The method of Claim 18, wherein a growth inhibiting amount of the fragment of a recombinant B19 parvovirus VP2 capsid is provided to said subject.
- 5 22. The method of Claim 18, wherein said fragment consists of the sequence glutamine-glutamine-tyrosine.
23. The method of Claim 18, wherein said fragment consists of the sequence of **SEQ. ID. NO. 5.**
- 10 24. The method of Claim 18, wherein said subject has a hematological proliferative disorder.
25. The method of Claim 24, wherein said hematological proliferative disorder is Polycythemia Vera.
- 15 26. A method of inhibiting the proliferation of endothelial cells comprising:  
identifying a subject in need of an inhibition of proliferation of endothelial cells; and  
providing to said subject a proliferation inhibiting amount of a capsid agent selected from the group consisting of a recombinant B19 parvovirus capsid and a recombinant B19 parvovirus VP2 capsid.
- 20 27. The method of Claim 26, wherein a proliferation inhibiting amount of the recombinant B19 parvovirus capsid is provided to said subject.
28. The method of Claim 26, wherein a proliferation inhibiting amount of the recombinant B19 parvovirus VP2 capsid is provided to said subject.
- 25 29. A method of inhibiting the migration of endothelial cells comprising:  
identifying a subject in need of an inhibition of migration of endothelial cells; and  
providing to said subject a migration inhibiting amount of a capsid agent selected from the group consisting of a recombinant B19 parvovirus capsid, a recombinant B19 parvovirus VP1 capsid, and a recombinant B19 parvovirus VP2 capsid.
30. The method of Claim 29, wherein a migration inhibiting amount of the recombinant B19 parvovirus capsid is provided to said subject.

31. The method of Claim 29, wherein a migration inhibiting amount of the recombinant B19 parvovirus VP1 capsid is provided to said subject.
32. The method of Claim 29, wherein a migration inhibiting amount of the recombinant B19 parvovirus VP2 capsid is provided to said subject.
- 5      33. An isolated or purified fragment of parvovirus B19 VP2 capsid consisting of a sequence selected from the group consisting of glutamine-glutamine-tyrosine, SEQ. ID. NO: 5, SEQ. ID. NO: 6, SEQ. ID. NO: 7, SEQ. ID. NO: 8, SEQ. ID. NO: 44, SEQ. ID. NO: 45, SEQ. ID. NO: 46, SEQ. ID. NO: 47, SEQ. ID. NO: 48, SEQ. ID. NO: 49, and SEQ. ID. NO: 50.

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CROSS-REFERENCE

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